

## Electronic Operating Manual (EOM) Compliance

I Carl Simmers, Business Manager, Distillation and Reforming, certify the Electronic Operating Manual for Distillation and Reforming is current and accurate as defined by 29CFR 1910. Detailed carry-over items are listed at the end of this document and are not included in the certification.

Deadline to complete and post carry over items listed on 2008 APR Report (Documents for Trainer – Outstanding) is January 31, 2009.

  
ABU Manager Signature (or designate)

12-11-2008  
Date

Electronic Operating Manual (EOM) Content	2008	Method of Review <sup>8</sup>			
	Annual Certification Letter	MOC <sup>1</sup>	APR <sup>2</sup> CalARP/ RISO	Triennial <sup>3</sup>	Field <sup>4</sup> Verification Pre and Post use review
<b>Volume I: - PROCESS &amp; EQUIPMENT DESCRIPTION</b>					
▪ Introduction	✓	100%			
▪ Process Information	✓	100%			
▪ Safety Information	✓	100% <sup>5</sup>			
▪ Environmental	✓	100%			
▪ Normal Operations	✓	100% <sup>5</sup>			
▪ Equipment Description	✓	100% <sup>5</sup>			
▪ Utilities	✓	100%			
<b>CONSEQUENCE OF DEVIATION (COD)</b> for Richmond Refinery includes system controls, operating limits, and troubleshooting.	✓	100% <sup>6</sup>			
<b>Volume II:- NORMAL PROCEDURES:</b>					
2000 - Startup Procedures	✓		100%		
3000 - Shutdown Procedures	✓		100%		
4000 - Equipment Related Procedures	✓		100%		
5000 - System Procedures	✓		100%		
9000 - TEMPORARY PROCEDURES		✓			100% <sup>4</sup>
<b>CHECKLISTS</b> (Any series):	✓	100%			

1 In – Progress carryover items are tracked and listed in the Richmond Refinery MOC database.

2 Annual Procedure Review Database (APR) Reviews Normal Procedures contained in Volume II

3 Ensure all documents are reviewed as often as needed and are current and accurate.

4 Field Verification (red- line) ensures document changes are captured and processed within a reasonable time period to reflect current operating conditions.

5 Special Review performed in 2008 in response to CalARP Audit Finding

6 Special Review March 2008 – in preparation for CalARP Audit

7 Trainers use these documents regularly and revise as necessary.

8 Deadline for carry over deliverables – See 2008 APR Report – Trainer Documents for Trainer - Outstanding.

## 2008 – PSM Compliance Certificate

Electronic Operating Manual (EOM) Content	2008	Method of Review			
	Annual Certification Letter	MOC <sup>1</sup>	APR <sup>2</sup> CalARP/ RISO	Triennial <sup>3</sup>	Field <sup>4</sup> Verification Pre and Post use review
<b>CHECKLISTS (Any series):</b>	✓	100%			
Volume III: - EMERGENCY PROCEDURES:					
▪ 100 - Emergency Shutdown.	✓		100%		
▪ 200 - Loss of Utilities	✓		100%		
▪ 300 - Loss of Critical Systems and Components	✓		100%		
▪ 400 - Unusual Occurrences.	✓		100%		
<b>Emergency Procedure</b> orange binders are available in control rooms containing current emergency procedures.	✓		100%		
Volume IV: - TRAINING GUIDE <sup>7</sup> :					
Common Job Tasks					7
Operator Job Break In					
▪ Lesson Plans					7
▪ Job aids	✓			32%	7
▪ Instructor Qualifier Guides					7
▪ Break In Checklist					7
▪ Situationals					7
▪ Solo Oral and Written Tests					7
▪ Panel Oral and Written Tests					7

**\*\*Detailed Carry-Over Items listed on next page or attached\*\***

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant 4 Crude

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine					
	18839	8/4/2008	Update Handheld Readings for CUA job.	Carry Over 2009. May impact Alarm Test/Response procedures. May only impact hand helds. Need confirmation from business unit.	N/A
	18850	8/6/2008	F1100A, B, F1160 - Perform Burner Pressure Test	Carry Over 2009. Stage 1. Need confirmation from business unit. May affect safe furnace firing re: start up / shut down or speciality procedure.	N/A
	19124	9/18/2008	4 Crude - F-1100B - Steam Atomization Line Stopple	Carry Over 2009. Need confirmation from business unit.	N/A
Yes - PSM Requirement					
	18645	6/16/2008	D&R / 4 Crude / P-1159 & P-1159A Seal Flush Piping Modification	Carry Over 2009. Need confirmation from business unit.	No
	19136	9/22/2008	Replace 2 S/C Flow Transmitter (11FT014)	Carrry Over 2009. May affect COD, AOA, or other control limits. Need confirmation from business unit.	No
	19173	9/29/2008	D&R - Modify 2-521 and 2-522 Transfer Switch Scheme for MP-1179 Upgrade	Carry Over 2009. May affect emergency response. Need confirmation from business unit.	No

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant 4Rhen

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine	19436	11/24/2008	Eliminate 35TI50 Low Temperature Alarm	11/25/2008 May impact the COD Table. MOC is brand new.  12/4/2008 Trainer investigating impact to the EOM. Carryover to 2009.	N/A

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant 5H2S

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine					
	19255	10/15/2008	Hydrocarbon Analyzer re-range, modify control board output to match field readings, and adjust alarm points	Carry Over 2009. Need determination from business unit as to impact on EOM.	N/A
Yes - PSM Requirement					
	18387	4/17/2008	Permanent Generator to supply Emergency electrical load for C-840 and #5 H2s Plants	Carry Over 2009. Need determination from Business unit re: Emergency Procedures, vol.1/Chpt. 3 Safety? This project still in planning phase. Unclear if this variation impacts EOM. Will verify with business unit personnel.	No
	19064	9/8/2008	Filter Change in K-825 from 10 microns and then to 5 microns	Carry Over 2009. 5H2S Chapter 5 pages 40 and 41 talk about K-825A/B after filters, Chapter 6 page 18 talks about K-825A/B after filters	No
	19455	12/1/2008	Add 2 new readings to ensure blowdown of critical piping in the handheld	Carry Over 2009. This seems to affect handhelds. Notified Colleen Fielding.	No

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant Cooling Tower

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Not Yet Reviewed	19512	12/8/2008	Temp installation of spool in place of APS control valve for TP-3400		N/A

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant DHT

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine					
	18250	3/11/2008	V1620 Oil Level Control Scheme Change	Carry Over 2009. Seeking clarification form business unit. Alarm procedures? This project still in planning phase. Unclear if this variation impacts EOM. Will verify with business unit personnel.	N/A
	19414	11/18/2008	Establish Low Alarms for individual E-1612 water injection rates at 2.5 GPM	Carry Over 2009. Need confirmation from business unit. May affect Chpt. 6, AOA, and/or COD.	N/A
Yes - PSM Requirement					
	19347	11/5/2008	H2 Purity Project, Routing SRU Striped Water to 2 Separator via Sewer at D&R	Carry Over 2009. As part of the H2 Purity Project, the Sour Water Concentrator C-2510 will be producing more stripped water in 4Q-2008 (current ~ 220 gpm, future ~ 455 gpm). This additional stripped water is due to an increase in sour water generation and direct steam injection in the column. The current sewer at the SRU plant, which sends stripped water to #13 Separator, has a capacity of 320 gpm. Therefore, any additional stripped water needs to be re-routed to a different location.	No

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant FGHT

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	19454	11/29/2008	GHT Inlet pressure E-1683A/B Intelatrac reading addition	Carry Over 2009. Another handheld. Notified Fielding, G Colleen (Colleen).	No



# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant General

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Not Yet Reviewed					
	19535	12/11/2008	RI-341 non open flame permit extensions during turnarounds		N/A
Under Review - Not yet determine					
	18510	5/19/2008	Environmental mitigation, New Fuel gas Analyzer & Shelter, at D&R	Carry Over 2009. 6/24/2008 This project still in the planning phase. Will investigate any impact to the EOM.	N/A
Yes - PSM Requirement					
	18661	6/18/2008	Rheniformer/NHT Sulfur Upset Procedures	6/26/2008 New MOC. Will require procedural updates.  11/25/2008 Trainer has received preliminary docs from engineering and will be converting to procedures.  12/4/2008 In progress. Carryover to 2009.	No
	19437	11/24/2008	DMC Controller Cleanup	11/25/2008 Have posted 5 updates and will verify if there any more.	N/A

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant JHT

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement					
	18498	5/15/2008	Install V-242 Drain Pot System, V-242A	<p>6/26/2008 Still appears to be in planning phase. Will follow up with Trainer.</p> <p>8/19/2008 Ch.6 and Ch.5 will require updates. Work still in planning phase.</p> <p>11/25/2008 Work still in progress. Will revisit for year end.</p> <p>12/4/2008 Trainer plans to have markups into Tech Editor by year end. Will verify EOM has been updated 1st Qtr 2009.</p>	N/A
	18697	6/27/2008	K-242/252 Inlet Strainers and Steam Tracing	<p>8/19/2008 Possible Ch.6 Equip Description updates. Will revisit as work commences.</p> <p>11/25/2008 Work under way. Will revisit for year end.</p> <p>12/4/2008 Trainer has given markups to D&amp;R Tech Writer. Will revisit 1st qtr 2009 to verify EOM has been updated.</p>	No
	19406	11/18/2008	K242 N2 blind open	11/25/08 This MOC will not impact the EOM per the West Side Trainer.	N/A
	19438	11/24/2008	Remove 36FI049 Spillback Alarm	11/25/2008 New procedure. Will require COD Table update. Still in planning phase.	N/A
	19442	11/25/2008	Replace K-242/252 1st stage fuel gas blow-down with 2nd stage process gas	12/4/2008 This project is in the planning phase. May result in a new procedure and updates to Vol.I. Carryover to 2009.	No

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant Penhex

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine					
	18516	5/19/2008	Steam Water Condensate Project - Condensate Recovery from E-4070	8/19/2008 Would require EOM updates. Project still in planning phase.  11/25/2008 No change. Still in planning phase. Carry over to 2009.	N/A
	18954	8/28/2008	Reg. 8-8 Condensate Recovery (Source Control) Project	9/16/2008 This MOC is in the designs phase. Will meet with the Trainer to determine impact to the EOM.  11/25/2008 No change. Project still in planning phase. Will revisit 1st qtr 2009 and review as scope is more clearly defined.	N/A

# EOM MOC Review - Working Report

12/11/2008 2:07:06 PM

ABU: D&R

Plant Utilities

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	18803	7/28/2008	Take E-3210 OUT OF SERVICE	8/19/2008 Equipment has been bypassed for years. Will verify any materials that need updates. Still in planning phase.  11/25/2008 Mark ups have been given to D&R Tech Writer. Work still under way.  12/4/2008 Currently awaiting posting to the EOM. Will verify 1st Qtr 2009.	N/A
	19401	11/18/2008	k-3200 removal	11/25/08 All K-3200 info will be removed from the EOM. Still in progress. Carry over to 2009.	No

2107

# EOM MOC Review - Working Report

12/5/2008 10:43:20 AM

ABU: D&amp;R

Plant 4Rhen

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	16888	3/26/2007	Remove Regen pressure control system and create a new controller for PC-85C valve on graphic	<p>7/26/2007 Appears to still be in the planning phase. Will talk to area trainer to verify any impact to EOM.</p> <p>7/31/2007 There will be changes to procedures and Vol. I Ch. 5.</p> <p>11/7/2007 Project still in planning phase.</p> <p>12/6/2007 No changes. Carryover to 2008.</p> <p>3/3/2008 HSE has been performed but no work has been done. Expected to be completed by October Regen.</p> <p>8/19/2008 No change in status.</p> <p>11/25/2008 No change in status. Carry over to 2009.</p>	No

1007

# EOM MOC Review - Working Report

12/5/2008 10:43:20 AM

ABU: D&R

Plant 5NHT

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	17759	11/5/2007	V-475 conversion to Ammonia storage vessel.	11/7/2007 Currently in planning phase. 12/6/2007 No change. Carryover to 2008. 3/3/2008 Still in planning phase. 8/19/2008 No change in status. 11/25/2008 No change. Will revisit in 2009.	No

2007

# EOM MOC Review - Working Report

12/5/2008 10:43:20 AM

ABU: D&amp;R

Plant General

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	17495	9/12/2007	Addition to handheld duties - Various Alarm Checks - FSC testing for CU,DHT,JHT,4Cat,5Cat,NHT.and Alarm management	Carry Over 2009. Need confirmation from business unit SME re: EOM impact - Plan is in place see Stage 2, Pre-Start Up Review - Procedures. Open 450 days. (lg)  Carry Over 2008. 3/3/2008 No change.	No

# EOM MOC Review - Working Report

12/5/2008 10:43:20 AM

ABU: D&amp;R

Plant JHT

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine	17694	10/22/2007	Increase EOM R-210 feed rate limit from 65 MBPD to 68.5 MBPD	<p>11/7/2007 Still in planning phase. Possible impact to Ch.2, Ch.5, and/or Ch.6 Equip Description.</p> <p>12/6/2007 No change. Carryover to 2008.</p> <p>3/3/2008 No change in status.</p> <p>8/19/2008 No change in status.</p> <p>11/25/2008 This work has appeared to have reached a standstill. Will revisit 1st qtr of 2009.</p>	N/A



# EOM MOC Review - Working Report

12/5/2008 10:43:20 AM

ABU: D&amp;R

Plant LSFO Flare

EOM Revision	MOC	Date	Project/Equipment Title	Notes	Revision
	Number	Issued			Complete
Yes - PSM Requirement	17735	10/29/2007	Procedure Change Live Relief	Carry Over 2009. Need confirmation from business unit SME re: EOM impact. Open 403 days. (lg)	No
				Carry Over 2008. In progress Stage 1. Need to develop job aid. Trainer indicates that technical trainer will develop procedure?	
	17937	12/30/2007	Install low priority alarm on 39PC051 OP	Carry Over 2009. Need confirmation from business unit SME re: EOM impact. Trainer (Leo) to confirm alarm has been created, if so provide descriptive language to D&R Technical Editor to include in EOM. (lg)	No

206

# EOM MOC Review - Working Report

12/5/2008 10:23:19 AM

ABU: D&R

Plant 4 Crude

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine	15511	1/17/2006	4CU - C-1160 Install New VTCR Distribution Header	<p>Carry Over 2009. Need confirmation from business unit SME re: EOM impact. Maybe Chpt. 5 or 6. Excellent description provided in Stage 2/Communication &amp; Training Section of this MOC. Open 1053 days. (lg)</p> <p>Carry Over 2008. In Progress. 11-17-2007 In progress.</p> <p>Carry over 2007. L.Goddard Follow Up- Unable to determine impact on EOM without SME input. Search result returned 99 hits. Stage 2 procedure review provides no information. Stage 2 Pre-Start Up provides explanation but no indication of procedures affected.</p>	N/A

2006

# EOM MOC Review - Working Report

12/5/2008 10:23:19 AM

ABU: D&amp;R

Plant DHT

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	15617	2/13/2006	ULSD Project - Installation of Sampling Pump with Sample Cooler for the Combined Feed Diesel	Carry Over 2009. Need confirmation from business unit SME re: EOM impact. Open 126 days. In Stage 1. (lg)  Carry Over 2008. In Progress.  Carry over 2007. 11-17-2007-Please advise on current status of this MOC.	No

# EOM MOC Review - Working Report

12/5/2008 10:23:19 AM

ABU: D&amp;R

Plant General

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement					
	16133	7/13/2006	Flare Compliance Project - I&E Work - D&R East Side	<p>Carry Over 2009. In Progress. Stage 1. Need confirmation from business unit SME re: EOM impact. COD general review and update March of 2008. Open 876 days. (lg)</p> <p>Carry Over 2008. In progress.</p> <p>Carry over 2007. L.Goddard</p>	No
	16141	7/18/2006	RMPCT Conversion to DMCPlus (D & R West)	<p>10/10/2006 This project is still working. There will be some verbage changes to EOM docs but no changes to control strategies (per West Side Trainer)</p> <p>11/15/2006 Project still working. Will revisit 1st Qtr 2007.</p> <p>5/23/2007 Project still being worked. Projected completion 3rd qtr. Will revisit.</p> <p>11-17-2007 - Carry Over 2008. In progress.</p> <p>12/6/2007 Control Group is still putting together documentation for this project. Expected completion early 1st qtr of '08. Carryover to 2008.</p> <p>11/25/2008 New manuals for DMC have been posted to the web but there are some RMPCT references that D&amp;R is working on removing. Carryover to 2009.</p>	No

2006

# EOM MOC Review - Working Report

12/5/2008 10:23:19 AM

ABU: D&amp;R

Plant LSFO Flare

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Under Review - Not yet determine	16231	8/16/2006	Digital Communication for Flare steam controls - LSFO Flare	<p>Carry Over 2009. Need confirmation from business unit SME re: EOM impact. Open 842 days. Stage 1. (lg)</p> <p>Carry Over 2008. In progress Stage 1. This MOC is to install digital communication from the flow meter to the DCS. This will remove the inaccuracies caused from the 4-20mA signal and allow steam control to be implemented in a future MOC.</p> <p>Carry over 2007. In progress.</p>	N/A

2006

# EOM MOC Review - Working Report

12/5/2008 10:23:19 AM

ABU: D&amp;R

Plant Penhex

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	16188	8/2/2006	Switch from R-4050 Outlet to R-4060 Outlet Temperature Control	<p>10/10/2006 This project is still in the development stages. Revisit 1st Qtr 2007.</p> <p>11/15/2006 Still in planning phase. Revisit 1st Qtr. 2007</p> <p>5/23/2007 Temporary procedure in place for test run. If test run yeilds desired results then procedure and EOM will be updated to reflect permanent changes. (West Side Trainer)</p> <p>11/7/2007 Still doing test runs. Will revisit in December.</p> <p>12/6/2007 Still doing "step-testing". Expected to last through 1st qtr 2008. Will reevaluate then. Carryover to 2008.</p>	No

2205

# EOM MOC Review - Working Report

12/5/2008 9:31:28 AM

ABU: D&R

Plant 4 Crude

EOM Revision	MOC Number	Date Issued	Project/Equipment Title	Notes	Revision Complete
Yes - PSM Requirement	15434	12/16/2005	4CU - C1160 Stripping Steam Sparger Installation	Carry Over 2009. Need confirmation from business unit SME re: EOM impact. Open for 1085 days. (lg) Carry Over 2008. In Progress. 11-17-2007 - Follow Up. Unable to determine impact on EOM without SME input. Search result returned 22 hits. Stage 2 procedure review provides not information. Stage 2 Pre-Start Up provides explanation but no indication of procedures affected. 8/23/2006 MOC in progress.	No

# APR Status

11 December, 2008

ABU	Plant	Procedure Type	Total Documents for Reviewer	Reviewer Completed	Outstanding	Total Documents for Trainer	Trainer Completed	Outstanding
D&R	4Crude	Start-Up	22	22	0		0	
D&R	4Crude	Shutdown	19	19	0		0	
D&R	4Crude	Equipment/System (4000/5000) Series	15	15	0		0	
D&R	4Crude	Emergency	22	22	0		0	
D&R	4Rheniformer	Start-Up	11	11	0	5	3	2
D&R	4Rheniformer	Shutdown	7	7	0	7	7	0
D&R	4Rheniformer	Equipment/System (4000/5000) Series	10	10	0	3	3	0
D&R	4Rheniformer	Emergency	11	11	0	7	7	0
D&R	5H2S	Start-Up	7	7	0		0	
D&R	5H2S	Shutdown	11	11	0		0	
D&R	5H2S	Equipment/System (4000/5000) Series	18	18	0		0	
D&R	5H2S	Emergency	15	15	0	1	1	0
D&R	5-NHT	Start-Up	9	9	0	4	4	0
D&R	5-NHT	Shutdown	4	4	0	3	3	0
D&R	5-NHT	Equipment/System (4000/5000) Series	13	13	0	8	0	8
D&R	5-NHT	Emergency	11	11	0	4	4	0
D&R	5Rheniformer	Start-Up	11	11	0	8	4	4
D&R	5Rheniformer	Shutdown	2	2	0	2	0	2
D&R	5Rheniformer	Equipment/System (4000/5000) Series	4	4	0	4	0	4
D&R	5Rheniformer	Emergency	11	11	0	11	11	0



# API Status

11 December, 2008

ABU	Plant	Procedure Type	Total Documents for Reviewer	Reviewer Completed	Outstanding	Total Documents for Trainer	Trainer Completed	Outstanding
D&R	Caustic Scrubber	Start-Up	6	6	0	4	4	0
D&R	Caustic Scrubber	Shutdown	2	2	0	2	2	0
D&R	Caustic Scrubber	Equipment/System (4000/5000) Series	2	2	0		0	
D&R	Caustic Scrubber	Emergency	6	6	0		0	
D&R	Debru	Start-Up	6	6	0		0	
D&R	Debru	Shutdown	1	1	0		0	
D&R	Debru	Emergency	2	2	0		0	
D&R	DHT	Start-Up	36	36	0		0	
D&R	DHT	Shutdown	20	20	0		0	
D&R	DHT	Equipment/System (4000/5000) Series	7	7	0		0	
D&R	DHT	Emergency	19	19	0		0	
D&R	GHT	Start-Up	15	15	0		0	
D&R	GHT	Shutdown	5	5	0		0	
D&R	GHT	Equipment/System (4000/5000) Series	4	4	0		0	
D&R	GHT	Emergency	14	14	0		0	
D&R	JHT	Start-Up	21	21	0	12	0	12
D&R	JHT	Shutdown	5	5	0	2	2	0
D&R	JHT	Equipment/System (4000/5000) Series	20	20	0	15	3	12
D&R	JHT	Emergency	16	16	0	11	11	0
D&R	K-3950 Relief	Start-Up	6	6	0		0	

# API Status

11 December, 2008

ABU	Plant	Procedure Type	Total Documents for Reviewer	Reviewer Completed	Outstanding	Total Documents for Trainer	Trainer Completed	Outstanding
D&R	K-3950 Relief	Shutdown	4	4	0		0	
D&R	K-3950 Relief	Equipment/System (4000/5000) Series	3	3	0		0	
D&R	K-3950 Relief	Emergency	1	1	0		0	
D&R	K-900	Start-Up	15	15	0	2	2	0
D&R	K-900	Shutdown	8	8	0	4	4	0
D&R	K-900	Equipment/System (4000/5000) Series	2	2	0	2	0	2
D&R	K-900	Emergency	1	1	0	1	1	0
D&R	Naphtha Splitter	Start-Up	3	3	0		0	
D&R	Naphtha Splitter	Shutdown	2	2	0		0	
D&R	Naphtha Splitter	Emergency	8	8	0	8	8	0
D&R	Penhex	Start-Up	17	17	0	7	7	0
D&R	Penhex	Shutdown	5	5	0	3	2	1
D&R	Penhex	Equipment/System (4000/5000) Series	15	15	0	7	4	3
D&R	Penhex	Emergency	17	17	0	11	11	0
D&R	Reformat Splitter	Start-Up	8	8	0		0	
D&R	Reformat Splitter	Shutdown	2	2	0	1	1	0
D&R	Reformat Splitter	Emergency	11	11	0	10	10	0
D&R	Utilities	Equipment/System (4000/5000) Series	2	2	0	2	2	0
D&R	Utilities	Emergency	2	2	0	2	2	0

# API Status

11 December, 2008

ABU	Plant	Procedure Type	Total Documents for Reviewer	Reviewer Completed	Outstanding	Total Documents for Trainer	Trainer Completed	Outstanding
Total:			572	572	0	173	123	50
Reviewer Completion Percent: 100.00%			Trainer Completion Percent: 71.10%					

2008-D&R-ALL-JA.xls

Plant	Task	Task Name	J/A	Complete
4CRD	4CU4210J	C-1160 Wash Oil Spray Distributor Water Tes	X	
4CRD	4CU4215J	C-1190 LPG Sampling Procedure	X	
4CRD	4CU4411J	F-1160 Ultra Low NOx Burner Hot Start-Up	X	
4CRD	4CU4413J	F-1100A/B Low NOx Burner Start-Up Hot	X	
4CRD	4CU44140J	F-1100A/B Low NOx Burner Shutdown	X	
4CRD	4CU4415J	F-1160 Low NOx Burner Shutdown	X	
4CRD	4CU4585J	Isolation and Clean-up of P-1165	X	
4CRD	4CU4590J	Isolation and Clean-up of P-1165A	X	
4CRD	4CU4720J	K-1103 - Operation	X	
4CRD	4CU4723J	K-1179/A -- Switch and Remove from Service	X	
4CRD	4CU4735J	Commissioning K-1165/A Resid Filters	X	
4CRD	4CU4736J	K-1165/A Resid Filters Clean-up	X	
4CRD	4CU4741J	K-1196 Fuel Coalescer Maintenance/Filter Change	X	
4CRD	4CU4750J	Place K-1171s in Flare Gas Recovery	X	
4CRD	4CU4751J	Remove K-1171's from Flare Gas Recovery	X	
4CRD	4CU4755J	K-1109 Strainer Clean Up	X	
4CRD	4CU4765J	Shutdown E-1190 Fogging System	X	
4CRD	4CU4770J	Startup E-1190 Fogging System	X	
4CRD	4CU4775J	K-1190 Filter Change	X	
4CRD	4CU5015J	Water Washing V-1102 Level Displacer	X	
4CRD	4CU5025J	Set P-1175 Speed Mode	X	
4CRD	4CU5035J	Test EBV's	X	
4CRD	4CUG2005J	Steam Testing -Archive	X	x
4CRD (A Job)	2005	Steam Testing General	X	
4CRD (A Job)	4210	C-1160 Wash Oil Spray Distributor Water Test	X	
4CRD (A Job)	4737	K-1165/A Resid Filters Clean-up with Filters in Place	X	
4CRD (A Job)	L001	Place Burner in Service	X	
4CRD (A Job)	P001	AGAR Probe Alarm Illustration	X	
4CRD (A Job)	4CUAB01J	Testing of Minimum Pressure Fuel Gas Regulator for F-1100A	X	
4CRD (A Job)	4CUAB02J	Testing of Minimum Pressure Fuel Gas Regulator for F-1100B	X	
4CRD (A Job)	4CUAB03J	Testing of Minimum Pressure Fuel Gas Regulator for F-1160	X	
4CRD (A Job)	AE01	Sample V-1102 Desalter Tri-lines	X	
4CRD (A Job)	AE02	Sample T-1104 Carbon Drums	X	
4CRD (A Job)	P005	K-1100B Loading Sequence with Closed Clearance Pocket	X	
4CRD (A Job)	P006	K-1100B Loading Sequence with Open Clearance Pockets (Screwed Out)	X	
4CRD (A Job)	P010	K-1171 Loading Sequence	X	
4CRD (A Job)	P012	Put K-1171 in service	X	
4CRD (A Job)	P013	Put K-1171A in service	X	
4CRD (B Job)	E01	Obtain Residium Sample	X	

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4CRD (B Job)	E02	Obtain C-1190 OH Bomb Sample	X	
4CRD (B Job)	E03	Flare Gas Sample Collection	X	
4CRD-PCO	A01	Development and explanation of the Operating Schedule (Plan)	X	x
4CRD-PCO	C01-1	Re-establish Console View	X	x
4CRD-PCO	C01-2	Build a Single-tag Trend	X	x
4CRD-PCO	C01-3	Build a Group Display	X	x
4CRD-PCO	C01-4	Build a Multi-Tag Trend	X	x
4CRD-PCO	C01-5	Discuss Alarm Summary Layout and Options	X	x
4CRD-PCO	C01-6	Perform "Alarm Disabled" Query	X	x
4CRD-PCO	C01-7	Perform "Points-Not-in-Normal" Query	X	x
4CRD-PCO	C01-8	Discuss Enable and Disable Alarm Functions	X	x
4CRD-PCO	C01-9	Perform "Points-Not-in-Normal" Query	X	x
4CRD-PCO	J01-4	Atmospheric Distillation Column Overview	X	x
4CRD-PCO	J01-5	Adjust Vacuum Furnace and Vacuum Column Operation	X	x
5H2S Operator	4205	Start Up C840	X	x
5H2S Operator	4210	Sample Procedures – C840	X	x
5H2S Operator	4505	P-891 Operating Instructions	X	x
5H2S Operator	4701	K826, DEA Filter, Cartridge Replacement	X	x
5H2S Operator	5003	Skim Hydrocarbon	X	x
DBR	4705j	Place Calgon Filter Skid in Service	X	x
DBR	4710j	Single Stage Operation Back Wash	X	x
DBR	4715j	Backwash of Entire Skid	X	x
DBR	4720j	Change K-3140 A & B Bag Filter	X	x
DBR	K01J	Route V-11 to Relief	x	x
DHT(PCO)	H001	Chem Clean V-1630 and C-1650 -Archive	X	x
DHT(PCO)	A001J	Cleanup P-1601/A Minimum Flow Piping for FGHT tie ins - Archive	X	x
DHT(PCO)	A002J	ULSD 16FV061 Dead Leg Removal - Archive	X	x
DHT(PCO)	A003J	ULSD Seal Flush Modification - Archive	X	x
DHT(PCO)	A004J	12 Inch Product/Feed Blind Removal - Archive	X	x
DHT(PCO)	A005J	E-1665 Pump Out Line Replacement - Archive	X	x
DHT(PCO)	A3005J	H2 Make up Lines for FGHT tie in - Archive	X	x
DHT(PCO)	A3010J	Rich/Lean DEA for FGHT tie in - Archive	X	x
DHT(PCO)	A3011J	Lean DEA off plot tie in - Archive	X	x
DHT(PCO)	A3015J	Instrument Air For FGHT tie in - Archive	X	x
DHT(PCO)	A3020J	Natural Gas tie in for FGHT - Archive	X	x
DHT(PCO)	A3030J	150 Psig Steam/L.P. Condensate FGHT tie in - Archive	X	x
DHT(PCO)	A3035J	Fresh Utility H2O for FGHT tie in - Archive	X	x
DHT(PCO)	A3040J	Stripped Water tie in for FGHT - Archive	X	x
DHT(PCO)	A3045J	Cooling Water Supply/Return For FGHT tie in - Archive	X	x
DHT(PCO)	A3055J	Vent Gas V-1660 to V-242 - Archive	X	x

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DHT(PCO)	A3060J	Sour Water Header Cleanup and Isolation For FGHT tie in - Archive	X	x
DHT(PCO)	A3065J	Liquid Pump-out Header Cleanup and Isolation for FGHT tie in - Archive	X	x
DHT(PCO)	A3070J	Vent to Flare (Relief) - Archive	X	x
DHT(PCO)	A3075J	DHT Fuel Gas Supply - Archive	X	x
DHT(PCO)	A3080J	Feed Modification FGHT - Archive	X	x
DHT(PCO)	A3085J	H2S Stripper Bottoms - Archive	X	x
DHT(PCO)	A3090J	FCC LCO to DHT Feed Manifold - Archive	X	x
DHT(PCO)	AE01j	Obtain Combined Diesel Feed Sample	X	x
DHT(PCO)	L001	Bypass the Shutdown Circuits for F-1610	X	x
DHT(PCO)	M001	Response to the Loss of TP-1601	X	x
DHT(PCO)	M002	Shutdown TP-1601	X	x
DHT(PCO)	M003	Startup TP-1601	X	x
DHT(PCO)	P001	Response to Axial Position Alarm	X	x
DHT(PCO)	P002	Response to High Vibration Alarm on K-1600	X	x
GHT	001j	Switching P-1670 VSD to FC945B	X	x
GHT	002j	Switching FC954B to VSD Control	X	x
GHT	003j	Switching P-1670 to P-1670A	X	x

Caustic Scrubbers	2010	Charging Caustic Scrubber Acid Tank V-4720	X	
Caustic Scrubbers	2035	Dump spent caustic from C-4700 and charge a fresh batch of caustic	X	
Caustic Scrubbers	4305	To remove hydrocarbon from V-4710.	X	
Caustic Scrubbers	4505	To provide start-up and APS procedures for pumps with APS.	X	
Caustic Scrubbers	4510	Shutdown pumps with APS.	X	
Caustic Scrubbers	4515	Switch Lead and Back-up Pumps with APS	X	
Caustic Scrubbers	4520	Testing pump APS system.	X	
Caustic Scrubbers	4525	P-4700/A start-up.	X	
Caustic Scrubbers	4530	P-4710start-up.	X	
Caustic Scrubbers	4535	P-4720 Acid Injection Pump checkout and start-up.	X	
Caustic Scrubbers	5020	Cleaning and commissioning pH probes.	X	
Caustic Scrubbers	5005	Draining sump in Caustic Scrubber area.	X	
Caustic Scrubbers	5001	Test AOV-006, chopper valve on Butamer Stabilizer off gas to Caustic Scrubber and associated solenoid	X	
4 Rheniformer	4705	Testing of fuel gas minimum pressure regulators	X	
4 Rheniformer	4315	Transfer of Perchloroethylene (Chloride) from bulk storage facility vessel, V-3592 to Penhex, 4 Rheniformer	X	
4 Rheniformer	4325	Transfer of Dimethyl Disulfide from bulk facility to 4 Rheniformer and 5 Rheniformer	X	
4 Rheniformer	5005	Charging LSFO Acid Tank V-3412	X	
4 Rheniformer	5030	Charge water injection pot D-3572, and measure injection rate using draw down gage.	X	
4 Rheniformer	4710	Connect HPBFW seal flush cooler to P-3590 during regeneration.	X	
5 Rheniformer	1	Charge Chloride/Reformate to V-591, measure draw down rate.	X	
5-NHT	5002	Guidelines for pH Control, V-430 Wash Water	X	
5-NHT	01J	Bleed condensate from 500 psig steam supply to P-447A before commissioning after maintenance or che	X	

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5-NHT	4705	Take E-440 Fogging system out of service.	X	
5-NHT	4710	Put E-440 Fogging system in service.	X	
5-NHT	4715	Change K-440 water filter cartridges in E-440 fogging system.	X	
5-NHT	5002	Guidelines for pH Control, V-430 Wash Water	X	
JHT	4720	Placing Salt Drier Coalescer Prefilters in service.	X	
JHT	4725	Placing Salt Drier afterfilters in service.	X	
JHT	5045	Change cartridges in Salt Drier Pre and Afterfilters.	X	
JHT	L001	Light furnace burners with furnace in a "hot" condition.	X	
JHT	4710	Using the 123 line to 51 line jump over. Routing finished jet over 123 line to 51 line jump over.	X	
JHT	5040	Feeding Light Poly to JHT	X	
JHT	X01	Test 36HV021 System	X	
H2 (K-900)	2050	Set Automatic Pump Start System	X	
H2 (K-900)	2080	680 psig Isomax Hydrogen Line (Hydorgen Emergency Loop Line)	X	
Naphtha Splitter	4515	Test APS of stand by pump	X	
Naphtha Splitter	4520	Test automatic closing of the EBV upon loss of instrument air or by using remote shut off switch.	X	
Naphtha Splitter	4505	Start lead pump and set up stand by pump for APS operation.	X	
Naphtha Splitter	4510	Disable APS circuit and shut down lead pump.	X	
Reformate Splitter	4515	Switch from pump that is in service to stand by pump.	X	
Reformate Splitter	4520	Test APS of the stand by pump	X	
Reformate Splitter	4505	Start lead pump and set up spare pump for APS operation	X	
Reformate Splitter	4510	Disable APS circuit and shut down lead pump	X	
Penhex	4517	Filling Perc Day Tank.	X	
Penhex	4510	Setting pump up in APS	X	
Penhex	4511	Shut down pump without APS starting spare pump.	X	
Penhex	4512	Switch lead and back up pump	X	
Penhex	4513	APS test using pump discharge pressure as sensing point.	X	
Penhex	4514	EBV testing	X	
Penhex	4515	Test P-4094/A low flow shutdown.	X	
Penhex	4518	Start-up P-4040/A Fresh Feed Pump	X	
Penhex	4519	P-4080/A Separator Recycle Pump startup	X	
Penhex	4520	Start-up P-4090/A Debutanizer Reflux Pump	X	
Penhex	4521	Start-up P-4092/A Debutanizer Bottoms Pump	X	
Penhex	4522	Start-up P-4095/A Condensate Return Pump	X	
Penhex	4523	Start-up P-4099 Relief Drum Pump	X	
Penhex	4601	E-4080 Hot Nitrogen Purge	X	
Penhex	4602	E-4080 Exchanger Clean up	X	
Penhex	2090	Commission natural gas system to Penhex.	X	
Penhex	2095	Commission Lube Oil lines	X	
Penhex	4516	Monitoring PERC injection rate	X	
Penhex	4101	Emergency Shutdown Valve to HS-65.	X	

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Penhex	4102	Emergency Shutdown Valve to HS-70 Test	X	
Penhex	4505	P-4040/A Minimum Flow Test Procedure	X	
Penhex	4506	P-4080/A Minimum Flow Test Procedure	X	
Penhex	4507	P-4090/A Minimum Flow Test Procedure	X	
Penhex	4508	P-4092/A Minimum Flow Test Procedure	X	
Penhex	4509	P-4095/A Minimum Flow Test	X	
Penhex	4701	TOTFLO Chop to FV-41 Test	X	
Penhex	4702	TOTFLO Chop to FV-60 Test	X	
Penhex	4703	TOTFLO Chop to FV-81 Test	X	
Penhex	4704	TOTFLO Chop to TV-50 Test	X	
Penhex	4705	TOTFLO Chop to TV-60 Test	X	
Penhex	4706	TOTFLO Chop to FV-50 Test	X	
Penhex	4707	Low Hydrogen Flow Chop to TV-50 Test	X	
Penhex	4708	Low Hydrogen Flow Chop to TV-60 Test	X	
Penhex	4710	V-4005 LPG Chop Valve	X	
Penhex	4711	AOV-055 Test	X	
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